

## PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE  
SAN FRANCISCO, CA 94102-3298



## PUBLIC WORKSHOP MINUTES

R.12-11-005 Distributed Generation Proceeding  
**California Solar Initiative Workshop:  
AB 217 Implementation for the MASH Program  
December 18, 2013**

10:30 AM – Noon  
PG&E Pacific Energy Center  
851 Howard St, San Francisco, CA 94103

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*Documents available at CPUC [CSI Workshops Website](#)*

**10:30 AM – Welcome—Introductions**

The purpose of this workshop is to gather input and feedback from stakeholders involved in the California Solar Initiative's MASH Program to inform the implementation of Assembly Bill 217 in early 2014.

*Note: If necessary, a separate workshop will be held for the SASH program.*

**10:40 AM – Presentation on MASH/AB217 by Jason Perkins, CPUC** *(see slides on PUC website)**AB 217 Funding and Capacity Targets*

- 50 MW for low-income residential housing
- At present installation levels, this translates to 37.5 MW for MASH, 12.5 MW for SASH
- \$108 million in additional funding will come to the program (including admin.)
- Under a 50/50 split, this translates to \$54 million for MASH, \$54 million for SASH
- Program to run until all incentives are claimed or until December 31, 2021, whichever is earlier

*New Requirements Under AB 217*

- AB 217 created Public Utilities Code Section 2852(d), which now states [*emphasis added*]:

(d) In supervising a program implementing the California Solar Initiative pursuant to this section, the commission shall ensure that the program does all of the following:

- (1) Is designed to **maximize the overall benefit to ratepayers**.
- (2) Requires participants who receive monetary incentives to enroll in the **Energy Savings Assistance Program** established pursuant to Section 382, if eligible.
- (3) Provides **job training and employment opportunities** in the solar energy and energy efficiency sectors of the economy

*Process and Guiding Principles*

- Assigned Commissioner's Ruling expected February 2014
- Followed by a Proposed Decision (with comments) in March-April 2014
- Final Decision expected by end of May 2014
- *However, applications may not be available for "MASH 2.0" until September or later*

**11:00 AM – Discussion Topics** -- *See List of Workshop Questions, Agenda page 2*

*The fast-moving discussion portion of the MASH workshop was difficult to capture in its full detail. Below are summary points posited by workshop attendees, with attention given to contrary viewpoints when they were offered.*

*Question 1: Are MASH Savings Being Passed Through to Low-Income Tenants?*

- When property owners are able to save money, they can reinvest that money into the property, providing (typically non-energy) benefits to tenants.
- Savings do not necessarily go into energy efficiency (EE) improvements.
- Privately-owned for-profit housing providers are eligible for MASH incentives so long as they meet the requirements of PU Code Section 2852.
- Property deed documentation should show affordable housing loans tied to the property—this is a clear sign that the property has a strong affordable housing commitment. Typically these loans are arranged through the California Housing Finance Agency (CalHFA). However, a property that simply has Section 8 voucher tenants does not necessarily qualify for MASH under Section 2852. Additional documentation is needed to ensure 20% of their units will be affordable for 30 years per Section 2852.
- If these non-energy benefits provided to MASH tenants could be quantified, that would help inform program design and evaluation. There have been studies of the Energy Savings Assistance Program (low income energy efficiency) that have attempted to verify the health and safety benefits brought to the property by installing energy efficiency measures.
- It may be difficult to add additional tenant pass-through expectations into the MASH program at the same time that incentives are declining. Adding additional

'hoops for the [property] owners to jump through' decreases the likelihood they will participate at all in the MASH program.

*Question 2: How would the MASH incentive process and contractor standard operating practices be affected by higher energy efficiency requirements?*

- Depending on the age of the property, and the date of its last rehab, it may already be meeting the Energy Commission's highly energy efficient Title 24 building requirements.
- If additional energy efficiency activities were to be required, it would make the most sense to include documentation as part of the Incentive Claim Form process. Although, requiring actual measures before disbursing MASH incentive funds would likely cause extended project delays.
- Like the SASH program, it is possible for MASH property owners and contractors to refer a list of customer eligible for the Energy Savings Assistance Program (ESAP) to the utility. Enrolling ESAP-eligible individuals is one of the new requirements under AB 217, although the statute is written in a way that applies more to SASH (single family) participants than multifamily properties. Referring ESAP-eligible customers would be a good-faith effort to meet this new statutory requirement.
- When proposing and designing new EE requirements, the Commission should keep in mind that many solar contractors are solar experts, not energy efficiency experts. It may not be a good idea to make solar contractors directly responsible for EE activities, and some have had difficulty getting utility information for properties in the past.

*Question 3: In order to meet AB 217's job training requirement, could GRID Alternatives' Subcontractor Partnership Program (SPP) model be imported into the MASH program?*

- Some MASH contractors already participate in the SPP or have their own job training efforts. In general, attendance for their job training workshops starts out strong but declines as the project progresses.
- Contractors by and large are familiar with job training programs run by community colleges and other organizations. Partnering with, or working through these established programs would reduce search and referral costs for contractors trying to meet a job training requirement.
- Requiring job trainees to participate in solar installations could present an additional liability to contractors, in that they would be including someone with less experience in their operations. However, MASH is not a mandatory program—applying for incentives is voluntary, and contractors not interested in participating do not have to.
- Every MASH project that gets funding will need to have some job training element in order to satisfy the requirements of AB 217.

*Question 4: AB 217 requires us to ‘double the capacity with half the money.’ How would lower incentive levels affect the MASH market? Will MASH projects look different with a lower incentive, in terms of financing, location, type of housing, contractors participating, etc.?*

- A reduction in incentives will probably drive more contractors and property owners towards leasing and power-purchase agreement (PPA) arrangements, and away from direct host customer purchases in cash. Essentially, lower incentives mean that up-front capital will increasingly have to come from third-party owners and investors.
- Extending the MASH virtual net metering tariff (‘full-retail-NEM’) beyond 2017 may be essential to help the program meet its goals. However, this matter will have to be addressed as an issue in the proceedings implementing AB 327 in 2014 and 2015, as it is beyond the limited scope of the issues raised here in AB 217.
- Incentive levels could be differentiated for host-customer owned versus third-party owned systems, meaning that host customer owned systems could receive a higher incentive than those purchased with third-party financing. However, it is not clear what the policy goal for this arrangement would be beyond simple host customer ownership. Given lower incentives and an increasing incidence of third-party financing, differentiating the incentive level could inadvertently discourage PPA providers from making investments in MASH projects.

## **11:50 AM – Wrap Up**

### *Next Steps*

- As noted above, an Assigned Commissioner’s Ruling issuing a staff proposal is expected by the end of February 2014.
- There will be two rounds of public comment in this process, one on the staff proposal and the other on the eventual Proposed Decision implementing ‘MASH 2.0’.
- Documents from today and other information is available on the CPUC’s [Workshops](#) and [California Solar Initiative](#) websites.

## **12:00 PM – Adjournment**

**\*Note:** Because of technical problems with the teleconference setup for this meeting, several call-in participants were unable to provide their feedback in real time. A message was sent to all registered attendees on December 26<sup>th</sup>, inviting them to submit informal written comments in response to the minutes and questions of the meeting. Two responses were submitted, and are presented below.

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## HUD REGION 9 – ENERGY AND CLIMATE OPERATIONS

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**FROM:** WAYNE WAITE  
**SUBJECT:** AB 217 Workshop – Comments on Minutes and Workshop Questions  
**DATE:** JANUARY 6, 2014

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RE: AB 217 Workshop – Comments on Minutes and Workshop Questions

Jason,

I attempted to participate at the December 18 workshop by phone but due to technical issues could not fully participate in the meeting, and even when attempting to respond to questions directed to me by persons attending the meeting on site, I could not resolve the technical barriers in a timely fashion.

Pursuant to your December 26 email regarding the AB 217 Workshops, I am providing feedback and comments on the questions included in the meeting's agenda and meeting's minutes.

Thank you for this opportunity.

COMMENTS:

### QUESTION AREA 1: Pass-Through of Common Area Load Savings

1. *One of the goals of the MASH program (#3) is to decrease electricity use and costs for tenants. Do stakeholders have a sense of whether MASH building owners are passing along the savings from going solar to their tenants? For example, in cases where the solar is not virtual net metering, are common area offsets reducing rent for tenants?*

COMMENT: Operational savings or benefits from MASH investments that might increase the projects cash flows or residual receipts do not result in a direct transfer of these benefits to the tenants. For income restricted affordable housing properties, the primary benefit of renewable energy investments is the preservation of affordable housing assets and rents. Reducing operating costs improves the financial stability and sustainability of the publicly regulated housing. The first call on operations savings are typically used could be used to cover debt service or operational payments resulting from the MASH supported investment. If after this there are excess receipts, which unless other funding or incentives are leveraged would be limited, such excess savings can be used to address other capital needs at the property, provide additional tenant services, or be distributed to the property's owners or investors.

2. *Do the rules regarding utility allowances make it difficult to pass on savings to tenants?*

COMMENT: Federally supported housing programs establish rent levels, utility allowances, and the amount of the required tenant contribution towards rent and utilities, which is known as the Total Tenant Payment (TTP). The amount of the tenant's contribution is

typically 30% of the household income but, in the case of tax credit properties, could be higher depending on the unit rent levels set for the property. Generally speaking, utility allowances would be adjusted as a result of the power generated from solar systems serving tenant units and any reduction to the utility allowance would result in an increase in the amount paid by the tenant toward rent, but would not increase the TTP, which is fixed. The timing of this adjustment can vary, so it is possible for tenant to receive some benefit until the utility allowance is adjusted to reflect the lower consumption at the property.

*3. Are there any program design steps we can take to increase tenant bill savings?*

COMMENT: As a practical matter, unless other grant funds or incentives are available, for a multifamily property to install a PV system serving individually metered tenant units, the property owner would need to capture some of the utility savings received by the tenant units to cover the added investment costs.

Within this context, to facilitate the installation of systems scaled to serve tenant units, additional authority is needed that would allow multifamily property owners or third party solar providers to receive a payment for a portion of the power generated by the PV system that is directly received by the tenant units and reflected in their utility bill. If possible, this would permit a greater sharing of utility benefits and mitigate the split incentive barriers associated with energy investments in multifamily properties

Additionally, with regards to master metered properties, it may be possible for the program design to specify that net energy savings recovered by the property be shared with tenant units.

*4. How would the MASH incentive process and contractor standard operating practices be affected by higher energy efficiency requirements, such as a full-scale EE audit or working with ESAP coordinators to enroll tenants?*

COMMENT: HUD generally supports the requirements for energy efficiency investments in conjunction with renewable energy investments. In this regards the following actions are recommended:

- Income restricted affordable housing properties that have been qualified to participate in the MASH program, should also deemed eligible and pre-qualified for utility administered ESAP programs without the need for additional tenant income verification.
- Multifamily properties participating in the Federal Multifamily Better Buildings Challenge partnership, under which participants agree to reduce portfolio-wide energy intensities by 20% by 2020, should be presumed to meet MASH's energy efficiency prerequisites without need for additional energy audits or investment plans. Documentation developed for the Federal Multifamily Better Buildings Challenge can be submitted to demonstrate compliance.

*5. AB 217 requires a job training program element for MASH, akin to SASH's Sub-Contractor Partnership Program that 40 solar contractors have participated in. Would*

the SPP model be transferable to the MASH program? Do contractors participating in the MASH program have job training programs already in place? Would it be feasible to have two job trainees per install? How large is a typical MASH install team, including both roof and ground work?

COMMENT: HUD generally supports the requirements for job training and placement. The following actions are recommended:

- Within California a number of green job training programs have been supported by the CEC. These programs are delivered by community colleges and workforce investment boards. This infrastructure should be utilized to the extent possible to support MASH job training objectives.
  - HUD has a separate requirement for public housing and local governmental agencies to provide job training and placement opportunities. Known as HUD's "Section 3" requirement, PHA and local governments must develop strategies and plans for job training and placement where there federal investments create job opportunities. In this regard, MASH program should recognize and accept such plans where MASH supported investments are made in conjunction with federal investments covered by HUD mandated Section 3 strategies and plans.
6. AB 217 requires us to 'double the capacity with half the money.' Incentives under "MASH 2.0" would unavoidably need to be lower than before. How would lower incentive levels affect the MASH market?

COMMENT: Minimal impact anticipated. A majority (over 80%) of the multifamily MASH transactions relied on third party ownership mechanisms.

The lower incentive levels may impact the level of net energy savings or cash flow that can be captured under PPAs or Leases, but this could be offset by additional property level contributions. In this regard, as incentives decline it is all the more important to align utility policies to enable investment by property owners to monetize some portion of the energy savings received by tenants to cover added debt service or operational payments required by PPAs or leases.

Additionally, leveraging strategies and partnership should be pursued to supplement the resources available under MASH. In this regard, it might be worth considering:

- Connections with California commercial PACE programs
  - Connection with lending programs provided by non-profit housing Intermediaries (e.g. Enterprise, LISC)
  - Providing an enhanced incentive for projects with PV systems serving both tenant and common areas that are matched by property contributions
7. Will MASH projects look different with a lower incentive? In other words, are there substantive and identifiable differences (e.g. location, type of housing, size of project, type of financing) between projects that would still be built with a lower incentive and those that wouldn't?

COMMENT: The projects should look similar to completed MASH projects. That said, a higher percentage of the projects on the current WAIT LIST are for systems service tenant units. We think this is attributable to declining systems costs and is a very favorable sign.

8. Would lower incentive levels mean that fewer contractors would be willing to build MASH projects

COMMENT: The market for solar is growing and any incentive is advantageous. As California develops policies to implement its Zero Net Energy requirements, the market for solar will be further enhanced.

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**SUN LIGHT & POWER**

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**FROM:** NINA RIZZO  
**SUBJECT:** AB 217 Workshop – Comments on Minutes and Workshop Questions  
**DATE:** JANUARY 10, 2014

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RE: AB 217 Workshop – Comments on Minutes and Workshop Questions

Hi Jason,

Thank you for the opportunity to add our comments to the published minutes of the workshop offered by the CPUC regarding implementation of AB 217 for MASH. We appreciate participating in the discussion. We have been a California installer for over 35 years and target affordable housing developers. We act as applicant for all of our clients that participate in MASH and have dedicated staff that work on processing rebate paperwork for the application and claim. Below are our answers to the guiding questions.

**Questions for Discussion****Pass-Through of Common Area Load Savings**

1. One of the goals of the MASH program (#3) is to decrease electricity use and costs for tenants. Do stakeholders have a sense of whether MASH building owners are passing along the savings from going solar to their tenants? For example, in cases where the solar is not virtual net metering, are common area offsets reducing rent for tenants?

While the rents are not directly lowered by the savings made possible with solar, by stabilizing the property's overall expenses more funding is available for other infrastructure projects. The savings from common area load reduction are used for on-site programs, improvements, etc. The main reason the non-profit affordable housing developers go solar is to reduce this significant variable expense and use the savings to serve their community.

2. Do the rules regarding utility allowances make it difficult to pass on savings to tenants?

The savings serve the tenants *indirectly*. The larger design issue is that many multifamily projects have limited roof space and it is much simpler to tackle the common meter from an administrative and logistical perspective.

3. Are there any program design steps we can take to increase tenant bill savings?  
 We don't believe this is needed. The tiered incentive (common vs. tenant) already incentivizes properly.

#### New AB 217 Program Requirements in Statute

4. How would the MASH incentive process and contractor standard operating practices be affected by **higher energy efficiency requirements**, such as a full-scale EE audit or working with ESAP coordinators to enroll tenants?

Energy audits, while important, are easily complicated and should be made accessible, streamlined and standardized. The wheel should not be re-invented in this space. A basic online energy audit that would suggest measures to be taken at would suffice and be more convenient. This should not be made into a complicated process.

5. AB 217 requires a **job training program element** for MASH, akin to SASH's Sub-Contractor Partnership Program that 40 solar contractors have participated in. Would the SPP model be transferable to the MASH program? Do contractors participating in the MASH program have job training programs already in place? **Would it be feasible to have two job trainees per install? How large is a typical MASH install team, including both roof and ground work?**

We *strongly* suggest that only one trainee be required. Our typical MASH install team is three to four people, sometimes only two. Finding and arranging for a trainee comes at a high administrative burden because requesting and scheduling a trainee is very time consuming. We think our offers to potential trainees are unattractive when we can only promise eight hours in any particular week, for example. We have concerns about the speed and quality of the work performed, and it also means possibly reducing hours that would otherwise be dedicated to a regular employee.

#### Incentive Level Changes to Meet 50 MW Target

6. AB 217 requires us to 'double the capacity with half the money.' Incentives under "MASH 2.0" would unavoidably need to be lower than before. **How would lower incentive levels affect the MASH market?**

The incentive should not fall below \$1.50/watt as they have no other incentives to go solar. The current incentive level being mentioned, \$1.00/W for common area, will require complicated financial models, a burden to affordable housing developers. Rather than a 50/50 split between MASH and SASH, we suggest a bigger proportion of the funds go to the MASH projects due to their larger economy of scale.

**7. Will MASH projects look different with a lower incentive?** In other words, are there substantive and identifiable differences (e.g. location, type of housing, size of project, type of financing) between projects that would still be built with a lower incentive and those that wouldn't?

The pool of available properties would significantly shrink with a lower incentive. MASH projects (retrofits) are inherently tricky and require a lot of coordination and investigation into the building's structure, electrical and site conditions. Lower incentives will mean that fewer projects will be built.

**8. Would lower incentive levels mean that fewer contractors would be willing to build MASH projects?**

No.

**Nina Rizzo**

Service and Policy Specialist

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